

REMARKS

Claims 1-23 are pending in the application. Claims 1-23 have been rejected.

Claims 1-6, 9, 10, 12-17 and 19-22 are rejected under 35 USC § 103(a) as being unpatentable over Kung et al. (US Patent No. 6,671,262) in view of Bennett (US Patent Application Publication No. 2002/0075799).

With regard to claim 1, Kung does not teach 'determining whether a first defined threshold level of *inbound* voice and data traffic is reached...[emphasis added]' In Kung, column 33, lines 9-13, it says, "... (such as by dynamically adjusting one or more parameters of the algorithm by an amount depending upon the quality of service that is *output*) in order to optimize the quality of service of the *output* multiplexed packet stream...[emphasis added]" Kung, column 33, lines 28-30 states "Further, if the quality of service of the multiplexed voices in the *output* multiplexed packet stream drops below a predetermined threshold...[emphasis added]."

Further, Kung does not teach 'freeing space within the input queue for use by inbound voice traffic until the first defined threshold of *inbound* traffic...[emphasis added].'" Kung is directed to monitoring the quality of service by the speed of the outbound traffic packets, not the inbound traffic packets. Kung may operate on the inbound data, but not based upon an inbound measure.

In addition, Kung manages the quality of service by moving data from the current device to other devices. All of these devices, including the initial device, have multiple queues of data to be processed. See Kung, figures 7-9. The conference server has several input queues, generally one for each party. Therefore, the freeing of space is not directed to a single input queue. In addition, Kung specifically teaches that the voice and data traffic is treated the same. See Kung, column 32, lines 39-44. All of the various types of data,

including video, audio, text, data, graphics and/or any other multimedia format, are equated with voice data.

Bennett also teaches the use of multiple queues. There is no single queue in the combination of references. In Bennett, paragraph 26, the queue groups are further defined to be comprised of queue group components, where the queue group components "thus represent amounts of data being received and buffered for transmission from the node." As discussed in the instant specification, page 2, multiple queues are not desirable.

The combination of references does not teach a method of reducing inbound traffic congestion by monitoring the inbound traffic congestion and then discriminating between voice and data traffic within a *single* queue. The combination of references does not address inbound traffic congestion as a queue of packets waiting to be processed. Kung does not address measurement of the inbound traffic at all, and Bennett is only concerned with the capacity of the buffer. The input queue of the instant invention is the queue of packets waiting to be processed, the wait time of which may be too long even if the buffer capacity is not exceeded.

It is therefore submitted that claim 1 is patentably distinguishable over the prior art and allowance of this claim is requested.

With regard to claim 9, it should be ruled allowable for the reasons as applied to claim 1. Further, the combination of references does not teach decision logic determining when a first defined threshold level of *inbound voice and data traffic in a single input queue* is reached. The measure in Kung is on the output, and the measure of Bennett is of buffer size for multiple queues. It is submitted that claim 9 is patentably distinguishable over the prior art and allowance of this claim is requested.

With regard to claim 16, it should be ruled allowable for the reasons as applied to claim 1, as the same amendment has been made to claim 16. Further, the instructions in

Kung do not determine if a first defined threshold of inbound voice and data traffic is reached, nor does the combination of references. With regard to the comments in the office action, Kung does not teach *discarding* the data packets, but instead teaches moving them to another device. These packets are not discarded, just move elsewhere. Bennett does not teach discriminating between high priority traffic and lower priority traffic in a single input queue, as Bennett is directed to multiple queues. See paragraph 26 of Bennett.

It is submitted that claim 16 is patentably distinguishable over the prior art and allowance of this claim is requested.

With regard to claim 21, claim 21 should be ruled allowable for the reasons as applied to claim 9. Further, the combination of references does not teach a means for determining if inbound voice and data traffic reaches a particular threshold, and then discarding data in a *single queue* for free space in the *input queue* (not the memory buffer). It is submitted that claim 21 is patentably distinguishable over the prior art and allowance of this claim is requested.

With regard to claims 2 and 10, there is no 'second defined threshold' in the combination of references. Freeing space until a quality of service improves is still directed to the first threshold, the quality of service, and freeing space until the buffer is no longer at capacity, as in Bennett, is also related to the first threshold. No second threshold exists. It is submitted that claims 2 and 10 are patentably distinguishable over the prior art and allowance of these claims is requested.

With regard to claims 3, 12 and 19, the combination of references does not teach analyzing the size of each packet of inbound voice and data packet in a *single input queue*. Bennett is directed to multiple queues, see paragraph 26, and Kung does not teach analyzing packet size. Therefore, it is submitted that claims 3, 12 and 19 are patentably distinguishable over the prior art and allowance of these claims is requested.

With regard to claims 4, 13, 20 and 22, the combination of references including Kung does not teach any second analyzing. Kung does not analyze *inbound* traffic, but bases the quality of service on the rate of *outbound* traffic, and there is no 'second analyzing.' It is submitted that claims 4, 13, 20 and 22 are patentably distinguishable over the prior art and allowance of these claims is requested.

With regard to claims 5 and 14, the combination of references does not teach selectively discarding inbound data packets from *a single queue*. As discussed above, Kung does not teach discarding, just moving data packets, and Bennett uses multiple queues. It is submitted that claims 5 and 14 are patentably distinguishable over the prior art and allowance of these claims is requested.

With regard to claims 6 and 15, the combination of references does not teach making the determination upon the arrival of each packet. In Bennett, paragraph 13, the packet is routed to one of multiple queues, based upon its priority. It is not either kept or discarded at the input. It is initially kept, stored in a particular queue and then discarded by a later algorithm. It is submitted that claims 6 and 15 are patentably distinguishable over the prior art and allowance of these claims is requested.

With regard to claim 17, it is submitted that this claim is patentably distinguishable over the prior art for the reasons as applied to claims 2 and 10 and allowance of this claim is requested.

Claims 7, 8, 11, 18 and 23 are rejected under 35 USC § 103(a) as being unpatentable over Kung et al. in view of Bennett and further in view of Farris (US Patent No. 6,064,653).

The combination of Kung and Bennett does not teach using a second threshold, the only thresholds either being the output packet delivery time or the capacity of the buffer, as discussed above. There is no second threshold. Neither of these references teaches the use of a user interface to allow setting of these thresholds.

The addition of Farris does nothing to cure this deficiency. The text referred to in the office action merely states that the thresholds are settable, not how. They could be set at the factory, or by some hardware setting. There is no indication that a user interface is available to do so. The only mention of setting thresholds is at the gateways, such as 20, and the only mention of users is at the PC or the telephone, which is remote from the gateways. It is therefore submitted that claims 7, 8, 11, 18 and 23 are patentably distinguishable over the prior art and allowance of these claims is requested.

No new matter has been added by this amendment. Allowance of all claims is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.

Julie L. Reed

Julie L. Reed
Reg. No. 35,349

MARGER JOHNSON & McCOLLOM, P.C.
1030 SW Morrison Street
Portland, OR 97205
503-222-3613
Customer No. 20575